



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,838	01/26/2004	Dennis L. Hammond	APX-12571.001	6895

7609 7590 08/23/2006

RANKIN, HILL, PORTER & CLARK, LLP  
925 EUCLID AVENUE, SUITE 700  
CLEVELAND, OH 44115-1405

EXAMINER

MAI, NGOCLAN THI

ART UNIT PAPER NUMBER

1742

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/764,838

**Applicant(s)**

HAMMOND, DENNIS L.

**Examiner**

Ngoclan T. Mai

**Art Unit**

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-14,16-20,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-14,16-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's arguments with respect to claims 1, 5-14, 16-20 and 22 have been considered but are moot in view of the new ground(s) of rejection.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 3, 5-14, 16-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schofalvi et al (US 2003/0220424 or U.S. Patent No. 6,376,585) in view of Donch et al. (U.S. Patent No. 4,851,189).

Schofalvi discloses a powder metallurgy composition comprising metal powder, a binder composition which comprises an aliphatic polyester polymer, an ethylenebisamide wax, and a guanidine wetting agent and a debinding accelerator, (2003/02204424 para. [0012], [0124]-[0125] or U.S. Patent No. 6,376,585, abstract). Schofalvi also teaches the powder metallurgy composition can be formed into green composition by injection molding or compacting and sintering.

The difference between the claims and Schofalvi is that Schofalvi does not teach graphite powder. However it is known in the art to add graphite powder as an alloying agent to metal powder to provide strength to the product produced from these powders, see Donch et al, col. 2, line 23-34. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to include graphite powder in powder metal composition taught by Schofalvi to provide improvement in strength of the final product.

Although Schofalvi does not specifically teach at least a portion of said solid lubricant converting to a liquid phase upon application of pressure to said composition, however, since the binder composition taught by Schofalvi contains the same ingredients as taught, at least a portion of the binder composition is inherently converted to a liquid phase upon application of pressure as recited in claim 1 or is capable of

Art Unit: 1742

forming liquid phase upon application of pressure as recited in claim 13. "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)."

Regarding claim 3, Schofalvi teaches employing binder composition in an amount of 1 to 10 vol. %, 2003/0220424 [0122] and U.S. Patent No. '585, col. 16, lines 39-57. Although the reference teaches the amount of the binder phrase in volume percent, it is the examiners position that, when converted to weight percent, this amount inherently encompasses the claimed amount absent evidence to the contrary.

Regarding claims 5 and 9, the limitations recited in the claims are disclosed in 2003/0220424 paragraphs [0040] and [0131] and U.S. Patent No. '585, col. 8, lines 52+.

Regarding claim 7, the limitation is disclosed in 2003/0220424 [0078] or U.S. Patent No. '585, col. 11, lines 29+. Note that ACRAWAX.®C is a synthetic wax.

As for claim 8, the ethylenebisamide wax taught by the references read on the claimed amide wax.

As for claims 10-12, the limitation is disclosed in 2003/0220424 paragraphs [0041]- [0043] or U.S. Patent No. '585 col. 8, lines 52+.

Regarding claims 14 and 16, since the binder composition and the graphite powder taught by Schofalvi in view of Donch et al. are the same as the claims, the properties as recited in the instant claims would have inherently possessed by the teachings of the cited references. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possess

Art Unit: 1742

characteristics attributed to the claimed product. In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990), In re Best, 195 USPQ 430 and MPEP § 2112.01.

As for claims 18-20, since Schofalvi teaches the same method employing the same material as claimed, the action or the properties of the polar powder disclosed in the claims as a result of the process would inherently be possessed by the teachings of the cited reference.

Regarding claim 22, Schofalvi discloses the amount of binder composition is from 1 vol.% to 10 vol.%, para [0122]. Although Schofalvi discloses the amount of the binder composition in vol. percent, it is the examiners position that, when converted to weight percent, this amount inherently encompasses the claimed amount absent evidence to the contrary.

As for claim 23, Schofalvi teaches the claimed method where metal powder and binder are placed in a mold and press, col. 35, lines 11+. There is no teaching of employing heat during pressing. Thus the application of pressure is at ambient temperature which reads on the limitation temperature of no greater than 140 F.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 9:30-6:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**NGOCLAN MAI**  
**PRIMARY EXAMINER**